

A2
CONC'D

a communication member between the sensor and the monochromator to transfer the sensed near infrared radiation to the monochromator; and

a processor operatively connected to the monochromator capable of identifying and determining the amount of constituents in the substance based on the detected and quantified one or more isolated narrow portions of the near infrared spectrum;

at least one of the housing and the substance location being movable relative to the other.

A3

39. (amended)

A system for measuring constituents of a substance in real time in a non-laboratory setting subject to diverse and changing environmental conditions comprising:

a light source capable of producing near infrared radiation in a controllable direction to a substance location;

a sensor oriented towards the substance location and capable of sensing near infrared radiation reflected from or passing through the substance location;

a monochromator having no moving optical components and capable of isolating narrow portions of the near infrared spectrum and a detector positioned to detect and quantify one or more isolated narrow portions of the near infrared spectrum created by the monochromator;

a communication member between the sensor and the monochromator to transfer the sensed near infrared radiation to the monochromator; and

P30
Concl'D

a processor operatively connected to the monochromator capable of identifying and determining

the amount of constituents in the product based on the detected and quantified one or
more isolated narrow portions of the near infrared spectrum;

the light source, sensor, monochromator, communication member and processor being moveable
relative to the substance location or vice versa.